

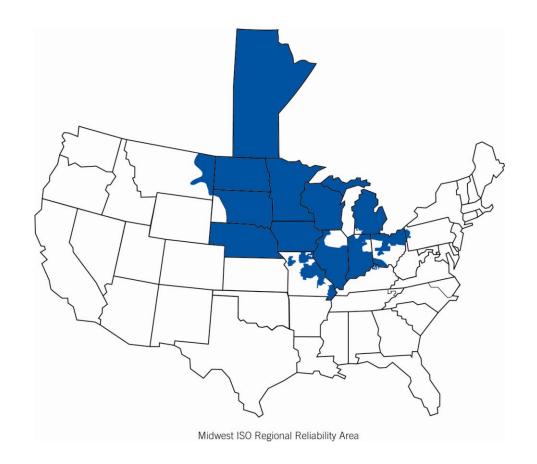
WIndiana 2009 Smart Transmission & Storage

Todd P. Hillman July 21, 2009

Midwest ISO Overview

The Midwest ISO is an independent, non-profit 501(C)(4) organization. We serve as the reliability coordinator for the transmission of `high voltage electricity via a security constrained economic dispatch across all or parts of 15 states and Manitoba.

- Control centers in Carmel, Indiana and St. Paul, Minnesota
- ▶ Began Reliability Operations on Dec. 15, 2001
- Began Tariff Administration and Scheduling Operations on February 1, 2002
- Energy Market Operations since April 1, 2005
- ASM Operations launched January 6, 2009
- ▶ Large footprint (~947,000 square miles)
- Multi-control area environment
- ▶ 133,000+ MW of generating capacity (by control area)
- ▶ 97,000 miles of transmission lines
- Over \$12 billion installed assets
- \$ Cleared per year = \$36 billion (2008)
- Annual Budget = \$250 million

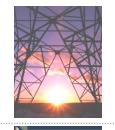




The Midwest ISO's Role

What We Do

 Provide Independent Transmission System Access



Implications

 All parties have equal and non-discriminatory access

- Deliver Improved Reliability Coordination
- Substantial regional reliability improvements

 Perform Efficient Market Operations



 Lower cost unit commitment, dispatch and congestion management

Coordinate Regional Planning



Integrated system planning

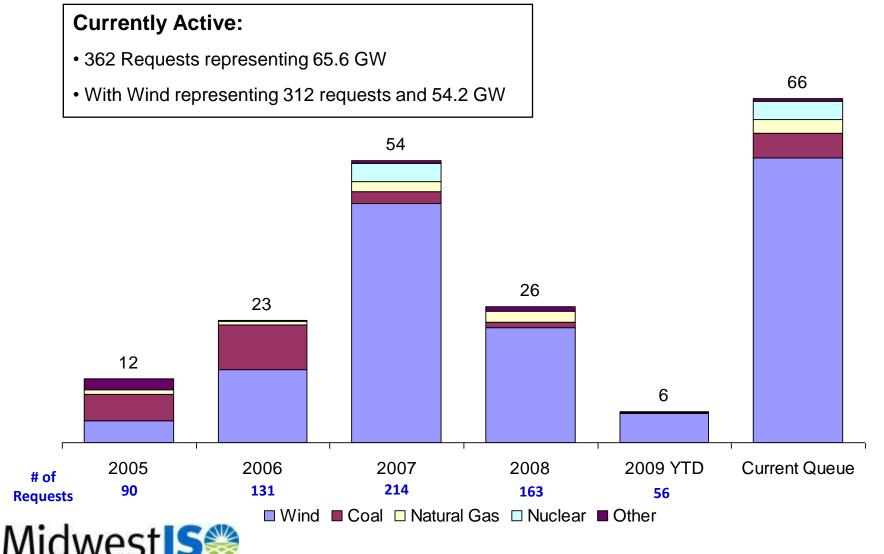
 Foster Platform for Wholesale Market Development



Encourage infrastructure investment and facilitate regulatory initiatives



Transmission Queue Evolution*



Energizing the Heartland

Engagement in Renewable Planning

